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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

**On Appeal to the Board of  
Appeals and Interferences**

Appellants : Shih-Fu Chang, et al.

Examiner: Desir, Jean Wicel

Serial No. : 09/530,308

Group Art Unit: 2614

Filed : September 5, 2000

Title: WATERMARKING OF DIGITAL IMAGE DATA

**BRIEF ON APPEAL**

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July 6, 2005

Date of Deposit

Robert L. Maier

54,291

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Date of Signature

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Appellants : Shih-Fu Chang, et al.

Examiner: Desir, Jean Wicel

Serial No. : 09/530,308

Group Art Unit: 2614

Filed : September 5, 2000

Title: WATERMARKING OF DIGITAL IMAGE DATA

**BRIEF ON APPEAL**

This brief is filed in response to a Final Office Action issued by the U.S. Patent and Trademark Office (the “PTO”) in the above-referenced application on February 9, 2005.

On May 9, 2005, Appellants filed a Notice of Appeal in the above-identified patent application from the final rejection of claims 1-4. In accordance with 37 C.F.R. § 41.37, this Appeal Brief is submitted in support of the Appeal of the final rejection. For the reasons set forth below, the final rejection of pending claims 1-4 should be reversed.

**I. REAL PARTY IN INTEREST**

The real parties in interest are the named inventors, Shih-Fu Chang and Jianhao Meng.

**II. RELATED APPEALS AND INTERFERENCES**

Appellants and the Appellants' legal representatives are unaware of any appeals or interferences related to the present application which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**III. STATUS OF CLAIMS**

In the Office Action dated February 9, 2005, claims 1 and 4 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,530,759 to Braudaway et al., entitled "Color Correct Digital Watermarking of Images" ("Braudaway"). Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as allegedly rendered obvious by Braudaway. Claim 5 is objected to as being dependent upon a rejected base claim, but the Examiner has indicated that this claim would be allowable if rewritten in independent form.

A copy of all of the pending claims is attached hereto in the Claims Appendix at page A-1.

**IV. STATUS OF AMENDMENTS**

Subsequent to the issuance of the Final Official Action dated February 9, 2005, no further amendments to the claims have been filed by Appellants.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

The invention described in the above-identified application is directed to methods for watermarking of digital video images. (Specification, page 1, lines 4-6).

As defined by independent claim 1, the only independent claim of the present application, the claimed method for including a watermark in a digital image comprises steps of obtaining digital data of a transformed representation of the image, determining a transformed representation of the watermark for optimized visibility of the watermark in the image, and superposing the transformed representation of the watermark on the transformed representation of the image. (Claim 1).

As defined in the specification, the “transformed representation of the image” is a transform of the digital image into a transform domain, such as the DCT (discrete cosine transform) or other non-pixel domain. (Specification, p. 2, lns. 3-6). Although prior art methods exist for providing a watermark in a digital image, as discussed in Appellants’ “Background of the Invention” (which, as discussed in greater detail in the “Argument” portion of this Brief, includes a reference to the work of Braudaway et al., authors of the lone cited prior art reference in the Final Office Action), those prior art methods are directed to providing a digital watermark in a digital image in the *pixel* domain. (*Id.*, p. 1, lns. 23-30). In contrast, Appellants’ invention is directed to the inclusion of a watermark in the *transform* domain. (*Id.*, p. 2, lns. 5-6).

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1 and 4 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,530,759 to Braudaway et al., entitled “Color Correct Digital Watermarking of Images” (“Braudaway”). Claims 2 and 3 are rejected under 35 U.S.C. § 103(a) as allegedly rendered obvious by Braudaway. Appellants respectfully request review of these rejections of record.

## **VII. ARGUMENT**

### **1. Rejection Under 35 U.S.C. § 102(b)**

In the Office Action dated February 9, 2005, Claims 1 and 4 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,530,759 to Braudaway et al., entitled “Color Correct Digital Watermarking of Images” (“Braudaway”). Appellants respectfully traverse these rejections of record.

#### **a. Relevant Case Law**

To establish an anticipation rejection, the cited reference must teach every element of the claimed invention. 35 U.S.C. § 102(b) states, in pertinent part, that “[a] person shall be entitled to a patent unless the invention was patented or described in a printed publication . . . more than one year prior to the date of the application for patent.” A patent claim is anticipated under § 102 if, among other things, “identity of invention” is shown. *Minnesota Mining and Manufacturing Co. v. Johnson & Johnson Orthopedics, Inc.*, 24 U.S.P.Q.2d 1321, 976 F.2d 1559, 1565 (Fed. Cir. 1985). In finding identity of invention, one “must show that each element of the claim in issue is found . . . in a single prior art reference.” *Id.* The Federal Circuit has held that, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros.*

v. *Union Oil Co. of California*, 2 USPQ2d 1051, 814 F.2d 628, 631 (Fed. Cir. 1987). Moreover, “[a] prior art publication cannot be modified by the knowledge of those skilled in the art for purposes of anticipation.” *In re Saunders*, 444 F.2d 599, 602-03, 170 U.S.P.Q. 213 (C.C.P.A. 1971).

**b. Claim 1 is Patentable Over Braudaway**

Appellants respectfully assert that Braudaway fails to disclose or suggest, either expressly or inherently, Appellant’s invention as recited in claim 1.

Claim 1 recites a method for including a watermark in a digital image, comprising:

obtaining digital data of a transformed representation of the image;

determining a transformed representation of the watermark for optimized visibility of the watermark in the image; and

superposing the transformed representation of the watermark on the transformed representation of the image.

As described above, the present invention is directed to a method for watermarking of digital video images in a *transform* domain. (Specification, page 1, lines 4-6; p. 2, lns. 5-6).

Braudaway is directed to a system for placing a visible watermark on a digital image, where an image of the watermark is combined with the digital image. (Braudaway, Abstract). The pixels of the watermark image are examined, and for each pixel whose value is not a specified “transparent” value, the corresponding pixel of the original image is modified by changing the brightness of the pixel but not the color. (Braudaway, col. 2, lns. 6-14).

However, Braudaway differs from the claimed invention at least in that it fails to disclose or suggest that the optimal visibility of the *transformed* representation of the watermark is determined based on the *transformed* representation of the image, as recited in claim 1. For example, for MPEG video images, the transformed representation is the DCT of the image

blocks or the motion compensation prediction errors. Braudaway describes that the optimized visibility is determined based on the *luminance value of each pixel* of the image *in the untransformed (i.e., pixel) domain*. In contrast, the method claim 1 determines optimal visibility of the transform coefficients of the watermark directly based on the transform coefficients of the images *without decoding of transform coefficients of the image*. Nothing in Braudaway discloses or suggests such a technique. The claimed method for determining optimal visibility of the transform coefficients of the watermark is different from the method described by Braudaway, which is performed in the *untransformed, or pixel domain*.

Braudaway therefore fails to disclose or suggest at least the claimed steps of :

- obtaining digital data of a transformed representation of the image;*
- determining a transformed representation of the watermark for optimized visibility of the watermark in the image; and*
- superposing the transformed representation of the watermark on the transformed representation of the image.*

Moreover, Braudaway is directed to solving a very different problem from the present invention. As stated in Braudaway:

While watermarking is an effective way for copyright and media owners to control the use of their images, conventional watermarking processes can alter the chromaticities of the original image at points where the watermark appears. This effect may be undesirable from the perspective of both the view and the owner of the original image. Braudaway, col. 1, lns. 56-61.

In light of the above, it is an object of the present invention to provide a digital watermark that preserves the chromaticities of the original image.  
Braudaway, col. 1, lns. 56-67.

Indeed, Braudaway's only concern is to ensure that a digital watermark, implemented in the pixel domain, does not affect chromaticities/color of the modified image pixels. Braudaway's concern

with color is further evidenced by the lengthy background discussion of “color theory” provided in the detailed description of the invention. (See Braudaway, col. 2, ln. 37 – col. 4, ln. 4).

The present invention, on the other hand, relates to solving the problem of increased efficacy, or robustness, of watermarks, and particularly in digital video images. (Specification, p. 9, lns. 8-18). Importantly, Appellants accounted for the work of Braudaway et al. in the “Background of the Invention” portion of the specification as filed. For example, Appellants note that “[o]ne robust way of including a visible watermark in a digitized image is described by Braudaway et al. . . . A luminance level,  $\Delta L$ , is selected for the strength of the watermark, and the luminance of each individual pixel of the image is modified by  $\Delta L$  and a nonlinear function.” (Specification, p. 1, lns. 23-30). The specification of the present application credits the work of Braudaway et al. for watermarking digital images *in the pixel domain* by changing brightness of pixels without changing the chromaticities. (See Specification, p. 4, lns. 10-12).

Accordingly, Braudaway fails to disclose or suggest all limitations of the invention of claim 1. Because Braudaway does not disclose each and every element of the claimed invention, it cannot be used as the basis for anticipation under 35 U.S.C. § 102. As such, Appellants respectfully request reversal of the Examiner’s rejections. Additionally, because claims 2-4 depend from claim 1 and include all of the limitations of claim, Appellants’ respectfully request reversal of the Examiner’s rejections of claims 2-4 for at least these reasons.

#### **c. Claim 4 is Patentable Over Braudaway**

Appellants respectfully assert that Braudaway fails to disclose or suggest, either expressly or inherently, Appellant’s invention as recited in claim 4. Claim 4, which depends from claim 1, recites a method for including a watermark in a digital image, comprising:

obtaining digital data of a transformed representation of the image;

determining a transformed representation of the watermark for optimized visibility of the watermark in the image; and

superposing the transformed representation of the watermark on the transformed representation of the image;

*wherein the image is one of a sequence of video images.*

Claim 4 is patentable over Braudaway for at least those reasons cited above with respect to claim 1, and also introduces the additional limitation that “the image is one of a sequence of video images.” (Specification, p. 2, lns. 23-28).

As an initial matter, Braudaway is directed to watermarking of *still images*, and includes no mention of or concern for *video images*, which are an important application for the claimed invention. As noted in the specification of the present application, the claimed features relate to one of the objects of the invention, i.e., to keep a watermark sufficiently visible throughout a *video sequence*, wherein the image changes from frame to frame. (Specification, p. 3, lines 13-21; Specification, p. 1, lines 4-6 (“This invention relates to providing digital image data with a watermark, and, more particularly, where the image data are video data.”)).

In the Final Office Action, the Examiner contends this step of claim 4 “is inherent to Braudaway’s disclosure.” (Office Action, p.2.). However, Braudaway fails to disclose or even remotely suggest, much less disclose through inherency, that the image “is one of a sequence of video images.” As noted above, the claimed features relate to one of the objects of the invention, i.e., to keep a watermark sufficiently visible throughout a video sequence, wherein the image changes from frame to frame. (Specification, p. 3, lines 13-21). Braudaway is devoid of any such discussion. In fact, Braudaway repeatedly refers to single, still images such as a “painting or photograph” (col. 4, line 11) or JPEG standard images (col. 4, line 25). Braudaway

even describes an “image capture and distribution” scheme suitable for use with the described system, wherein “a scanner 100 captures image data from a physical source (such as a painting or photograph).” (Braudaway, col. 4, lns. 8-11). The result of such a system can only be a digital still image. Braudaway clearly does not disclose or suggest digital video images.

In response, the Examiner contends that “Braudaway clearly pointed out that ‘many other types of images also exist’ and that ‘there are many other system configurations in which the present invention could be employed.’” (Final Office Action, p. 4). Again, the cited portion of Braudaway still discloses only “other types of *images*” and in no way discloses watermarking in digital *video*, which is a different and more complex problem requiring a different solution. (“In a video sequence, the image content changes from frame to frame. Thus, to keep a watermark sufficiently visible throughout the video, the watermark must be adapted to the video contents.” (Specification, p. 3, lns. 13-16)). The Examiner here apparently takes a retrospective view of inherency in light of the present invention (*In re Newell*, 891 F.2d 899, 13 USPQ2d 1248 (Fed. Cir. 1989) (“[A] retrospective view of inherency is not a substitute for some teaching or suggestion which supports the selection and use of the various elements in the particular claimed combination.”)). This hindsight reading of the Braudaway reference, in view of the claimed invention, is improper.

Accordingly, because Braudaway does not disclose or even suggest each and every element of the claimed invention, it cannot be used as the basis for anticipation under 35 U.S.C. § 102. As such, Appellants respectfully request reversal of the Examiner’s rejections.

## 2. Rejection Under 35 U.S.C. § 103(a)

In the Office Action dated February 9, 2005, Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as allegedly rendered obvious by Braudaway. Appellants respectfully traverse these rejections of record.

### a. Relevant Case Law

To establish an obviousness rejection, the PTO must show that the claimed invention would have been obvious as a legal matter, based on underlying factual inquiries including: (1) the scope and content of the prior art, (2) the level of ordinary skill in the art, (3) the differences between the claimed invention and the prior art, and (4) secondary considerations of nonobviousness. (*See Graham v. John Deere Co.*, 383 US 1, 17-18 (1966)).

The PTO bears the burden of establishing a case of *prima facie* obviousness. (*In re Bell*, 991 F.2d 781, 26 USPQ2d 1529 (Fed. Cir. 1993)). “A *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art . . . . If the examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned.” (*In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993)).

A PTO rejection for obviousness is improper when there is nothing in the cited prior art references . . . to suggest the desirability of the claimed subject matter. That the construction in a particular prior art reference would have resulted in the “common practice” of attaching certain parts does not show obviousness at the time of the invention but rather reflects improper hindsight analysis and the reading into the art of the applicant’s own teachings. (*In Re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986)).

**b. Claims 2 and 3 are Patentable Over Braudaway**

Claims 2 and 3 depend from claim 1 and accordingly include all of the limitations of claim 1. Accordingly, these claims are patentable over Braudaway for at least those reasons discussed herein above.

As admitted by the Examiner in the Final Office Action, Braudaway fails to explicitly disclose that the transformed representation of the image is a compressed representation as recited in claim 2. (*See* Office Action, p.3). However, the Examiner alleges that this feature is obvious, because “compression is very well known coding technique in the art that would reduce transmission or storage requirements; thus, an artisan would be motivated to implement this technique in Braudaway’s system, because this implementation would reduce transmission or storage requirements.” (Final Office Action, p. 3). Appellants disagree.

First, an artisan would *not* “be motivated to implement this technique in Braudaway’s system … [to] reduce transmission or storage requirements,” because this reduction for transmission and storage is already taught in the prior art and acknowledged by the inventors of the present invention. Compression for efficiency is addressed by the MPEG standard, discussed in the specification. (Specification, p. 2, lns. 29-32). Accordingly, there is no motivation for one of ordinary skill to look to art for these techniques – it is, in fact, disclosed within the present application.

Moreover, this compression is *not* the object of the claimed invention. Rather, the claims recite including a *transformed representation of a watermark* in a *transformed representation of the digital image*, as opposed to implementing a digital watermark in the *pixel* domain. The claimed invention is something distinct from the compression referenced by the Examiner.

In accordance with the comments above, Applicants submit that Braudaway fails to disclose or suggest one or more additional limitations of claim 2, e.g., through dependency from claim 1, “determining a transformed representation of the watermark for optimized visibility of the watermark in the image.”

Claim 3 was finally rejected for the same reasons as claim 2. However, for those reasons discussed above, and by way of dependency from claim 1, claim 3 includes one or more limitations which are not disclosed or suggested in the prior art.

Additionally, as stated in the specification, experimental tests performed by Appellants confirmed that the present invention solves the problem in the prior art by providing a more robust digital watermark for digital images:

In accordance with an aspect of the invention, preferred watermarks offer robustness in that they are not easily defeated or removed by tampering. For example, if a watermark is inserted in MPEG video by the method described above, it would be necessary to recover the watermark mask, estimate the embedding locations by extensive sub-pixel block matching, and then estimate the  $(\alpha, \beta)$  factors for each watermark region. In experiments, there always remained noticeable traces in the tampered video, which can be used to reject false claims of ownership and to deter piracy.

Specification, p. 9, lns. 8-18.

Accordingly, for at least these reasons, Braudaway cannot be used as the basis for obviousness under 35 U.S.C. § 103. As such, Appellants respectfully request reversal of the Examiner’s rejections of claims 2 and 3.

**3. Conclusion**

For at least the reasons indicated above, Appellants respectfully submit that the invention recited in the claims of the present application, as discussed above, is not anticipated by the cited prior art. Reversal of the Examiner's rejections of the claims is therefore respectfully requested.

Respectfully submitted,

Dated: July 6, 2005

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### VIII. CLAIMS APPENDIX

Claims as currently pending:

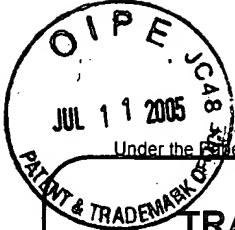
1. A method for including a watermark in a digital image, comprising:
  - obtaining digital data of a transformed representation of the image;
  - determining a transformed representation of the watermark for optimized visibility of the watermark in the image; and
  - superposing the transformed representation of the watermark on the transformed representation of the image.
2. The method in accordance with claim 1, wherein the transformed representation of the image is a compressed representation.
3. The method in accordance with claim 1, wherein the transformed representation of the image is a discrete cosine transformed representation.
4. The method in accordance with claim 1, wherein the image is one of a sequence of video images.
5. The method in accordance with claim 3, wherein the transformed representation includes motion compensation.

**IX. EVIDENCE APPENDIX**

None.

**X. RELATED PROCEEDINGS APPENDIX**

None.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# TRANSMITTAL FORM

*(to be used for all correspondence after initial filing)*

Application Number 09/530,308	Filing Date September 5, 2000
First Named Inventor  Shih-Fu Chang, et al.	Art Unit  2614
Examiner Name  Jean Wicel Desir	
Total Number of Pages in This Submission	Attorney Docket Number  070050.1272

ENCLOSURES <i>(Check all that apply)</i>		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached  <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers  <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input checked="" type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks		

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Baker Botts LLP	Customer No.	21003
Signature			
Printed name	Robert L. Maier		
Date	07/06/2005	Reg. No.	54,291

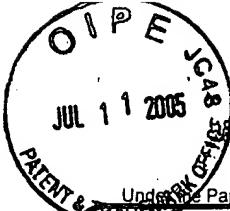
## CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature	
Typed or printed name	Robert L. Maier
Date	07/06/2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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# FEE TRANSMITTAL

## for FY 2005

Effective 10/01/2004. Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 500)

## Complete if Known

Application Number	09/530,308
Filing Date	September 5, 2000
First Named Inventor	Shih-Fu Chang, et al.
Examiner Name	Jean Wicel Desir
Art Unit	2614
Attorney Docket No.	070050.1272

## METHOD OF PAYMENT (check all that apply)

 Check  Credit card  Money Order  Other  None
 Deposit Account:

Deposit Account Number	02-4377
Deposit Account Name	Baker Botts L.L.P.

The Director is authorized to: (check all that apply)

Charge fee(s) indicated below  Credit any overpayments  
 Charge any additional fee(s) or any underpayment of fee(s)  
 Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

## 1. BASIC FILING FEE

Large Entity Fee Code	Small Entity Fee Code	Fee Description	Fee Paid
1001	2001	Utility filing fee	
1002	2002	Design filing fee	
1003	2003	Plant filing fee	
1004	2004	Reissue filing fee	
1005	2005	Provisional filing fee	
SUBTOTAL (1) (\$ 0)			

## 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Independent Claims	Multiple Dependent	Extra Claims	Fee from below	Fee Paid
			-20	= [ ] X [ ] = 0	
			-3	= [ ] X [ ] = 0	
					= 0

Large Entity Fee Code	Small Entity Fee Code	Fee Description
1202	2202	Claims in excess of 20
1201	2201	Independent claims in excess of 3
1203	2203	Multiple dependent claim, if not paid
1204	2204	** Reissue independent claims over original patent
1205	2205	** Reissue claims in excess of 20 and over original patent
SUBTOTAL (2) (\$ 0)		

\*or number previously paid, if greater; For Reissues, see above

## 3. ADDITIONAL FEES

Large Entity	Small Entity	Fee Code	Fee Description	Fee Paid
		1051	Surcharge - late filing fee or oath	
		1052	Surcharge - late provisional filing fee or cover sheet	
		1053	Non-English specification	
		1812	For filing a request for ex parte reexamination	
		1804	Requesting publication of SIR prior to Examiner action	
		1805	Requesting publication of SIR after Examiner action	
		1251	Extension for reply within first month	
		1252	Extension for reply within second month	
		1253	Extension for reply within third month	
		1254	Extension for reply within fourth month	
		1255	Extension for reply within fifth month	
		1401	Notice of Appeal	
		1402	Filing a brief in support of an appeal	500
		1403	Request for oral hearing	
		1451	Petition to institute a public use proceeding	
		1452	Petition to revive - unavoidable	
		1453	Petition to revive - unintentional	
		2501	Utility issue fee (or reissue)	
		2502	Design issue fee	
		2503	Plant issue fee	
		1460	Petitions to the Commissioner	
		1807	Processing fee under 37 CFR 1.17(q)	
		1806	Submission of Information Disclosure Stmt	
		8021	Recording each patent assignment per property (times number of properties)	
		1809	Filing a submission after final rejection (37 CFR 1.129(a))	
		1810	For each additional invention to be examined (37 CFR 1.129(b))	
		1801	Request for Continued Examination (RCE)	
		1802	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 500)

(Complete if applicable)

Name (Print/Type)	Robert L. Maier	Registration No. (Attorney/Agent)	54,291	Telephone	212-408-2500
Signature				Date	July 6, 2005

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